

## Shift Pointers



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**•Subject:**  
Erratic 2-3 shift, code P0780

**•Unit:**  
BAYA 5-speed automatic

**•Vehicle Applications:**  
2003 Honda LX

- Essential Reading:**
- Rebuilder
  - Shop Owner
  - Center Manager
  - Diagnostician
  - R & R

# What's Causing Third-Clutch Failures in Honda Five-Speeds?

For a while now I have been interested in finding out what is causing third-clutch failures in Honda five-speed transmissions. An opportunity finally presented itself when a customer brought in his 2003 Honda LX with a 3.0L engine and a BAYA five-speed automatic transmission. We had overhauled this transmission three years ago when the vehicle had 60,000 miles. Now with 134,000 miles the vehicle had an erratic 2-3 shift and code P0780 "Problem in Shift Control System." When we disassembled the unit the only problems we found were burnt third clutches (Figure 1) and badly burnt fluid.

The customer was not too happy with a vehicle that had experienced two transmission failures in 134K miles – the original one at 60K and now the rebuilt that lasted 70K. So I bought the vehicle because I thought it would be perfect for finding the cause of the third-clutch failure, since we knew the vehicle's history.

I wanted to put the transmission as close as possible to the condition in which it came in but in a workable state to obtain the readings we wanted, so we repaired the transmission only. That is, we replaced the third clutches and steels with Honda original equipment, installed an aftermarket rebuilt converter and thoroughly cleaned the valve body. We did this to find the original cause of the failure.

When we rebuilt the transmission three years ago, we installed an overhaul kit with Honda original clutches; aftermarket rebuilt

converter; new linear solenoids A, B and C; and new shift solenoids A, B, C and D. We did not replace the bushings in the mainshaft or the countershaft, since at that time we did not have the tools to replace them. We also did not re-

flash the PCM to the latest software or replace the pressure switches.

I connected our test equipment to the vehicle (Figure 2) to obtain as much data as possible. I obtained main line-pressure readings

